



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Tuschel et al.)
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)
Serial No.: 10/610,481)
)
)
Filing Date: June 30, 2003)

Entitled: METHOD FOR RAMAN
 IMAGING OF
 SEMICONDUCTOR MATERIALS

INFORMATION DISCLOSURE STATEMENT

Pittsburgh, Pennsylvania 15219
March 29, 2004

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to the provisions of 37 C.F.R. Sections 1.56, 1.97 and 1.98, Applicant submits the documents listed on the attached PTO/SB/08A for consideration during prosecution of the above-captioned patent application filed on June 30, 2003. In addition, Applicant refers the Examiner to the prior art made of record in the following parent applications: (i) Application Serial No. 09/619,371, filed July 19, 2000; (ii) Application Serial No. 09/976,391, filed October 12, 2001; and (iii) Application Serial No. 09/800,953, filed March 7, 2001.

This statement is made solely for the purpose of compliance with the above-identified rules and is not intended to be a substitute for an independent search by the Examiner and no representation of any such nature is made or intended by this statement.

I hereby certify that the correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:
Commissioner for Patents, P.O. Box 1450,
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John J. Buchanan
3/29/04
Buchanan Ingersoll, P.C.
Date

Also enclosed is a return postcard. Please date stamp and mail the postcard to acknowledge receipt of the above-mentioned correspondence.



Respectfully submitted,

A handwritten signature in black ink, appearing to read "M. L. Dever".

Michael L. Dever
Reg. No. 32,216

BUCHANAN INGERSOLL P.C.
One Oxford Centre, 20th Floor
301 Grant Street
Pittsburgh, PA 15219

Dated: March 29, 2004
Enclosure

Attorneys for Applicant

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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	2	030 3	Attorney Docket Number	030354
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Complete if Known

Application Number	10/610,481
Filing Date	June 30, 2003
First Named Inventor	Tuschel, David
Group Art Unit	2877
Examiner Name	[Not Assigned]

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	BA	MIZOGUCHI et al. "Raman image study of flash-lamp annealing of ion-implanted silicon" <i>Journal of Applied Physics</i> 77 (7) 1 April 1995, pp. 3388-3392.	
	BB	OTHONOS et al., "Raman spectroscopy and spreading resistance analysis of phosphorous implanted and annealed silicon", <i>Journal of Applied Physics</i> 75 (12) 15 June 1994, pp. 8032-8038.	
	BC	OTHONOS et al., "Multi-wavelength Raman probing of phosphorus implanted silicon wafers", <i>Nucl. Instr. and Meth. in Phys. Rev. B</i> . 117 (1996) pp. 367-374	
	BD	CHRISTOFIDES et al., "Reconstruction mechanisms in ion implanted and annealed silicon wafers ", <i>Defect and Diffusion Forum</i> Vols. 117-118 (1985), pp. 45-64	
	BE	ISHIOKA et al. "Reduction in Raman Intensity of Si (1 1 1) Due to Defect Formation During Ion Irradiation", <i>Solid State Communications</i> , Vol. 96, No. 6, pp. 387-390 (1995).	
	BF	DEY et al, "Raman scattering characterization of Si(100) implanted with mega-electron-volt Sb", <i>Journal of Applied Physics</i> 87 (3) 1 February 2000, pp. 1110-1116	
	BG	JAIN et al, "Raman scattering from ion-implanted silicon" <i>Physical Review B</i> . Vol. 32, No. 10, 15 November 1985, pp. 6688-6691	
	BH	DEWILTON et al, "RAMAN SPECTROSCOPY FOR NONDESTRUCTIVE DEPTH PROFILE STUDIES OF ION IMPLANTATION IN SILICON", <i>J. Electrochem. Soc.: SOLID STATE SCIENCE AND TECHNOLOGY</i> , May 1986, pp. 988-993	
	BI	ZHANG et al "Details of the Damage Profile in Self-Ion-Implanted Silicon", vol. 25 <i>Journal of Raman Spectroscopy</i> , pp. 515-520 (1994).	
	BJ	GORELICK, "Raman And Non-Linear Light Scattering From Undersurface Layers Of Ion Implanted Silicon Crystals", <i>materials Science Forum</i> , vol. 173-174 (1995) pp. 237-242	
	BK	NAKASHIMA et al. "Raman microprobe study of recrystallization in ion-implanted and laser-annealed polycrystalline silicon" <i>Journal of Applied Physics</i> 54 (5) May. 1983, pp. 2611-2617	

Examiner Signature	Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT					
(use as many sheets as necessary)					
Sheet	3	of	3	Attorney Docket Number	030354

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				T ²
	BL	SHUKLA et al, "Raman scattering from ultraheavily-ion-implanted and laser-annealed silicon" <i>Physical Review B</i> . Vol. 34, No. 12, 15 December 1986, pp. 8950-8953				
	BM	DEWILTON et al, "A Raman study of the dopant distribution in submicron pn junctions in B ⁺ or BF ₂ ⁺ ion implanted silicon", <i>SPIE Vol. 623 Advanced Processing and Characterization of Semiconductors III</i> 1986, pp.26-34				
		KIRILOV et al; "Amorphous phase transformation during rapid thermal annealing of ion-implanted Si", <i>Mat'l. Res. Soc. Symp. Proc.</i> , Vol. 52 (1986), pp. 131-138				

Examiner Signature		Date Considered	
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